



This document is a supplement to the *Operating & Maintenance Instructions* for the engine that powers this on-board generator.

This POWERLINK™ system includes the engine, an inverter, and a Ground Fault Circuit Interrupter (GFCI). The GFCI is a receptacle which protects against electrical shocks. A GFCI detects ground faults.

If a ground fault is detected, the GFCI will interrupt the circuit when it detects a difference in electric current. One type of ground fault occurs when electricity flows through a person to an earth ground instead of following the normal safe path.

Please be aware that the GFCI is not fail proof. Most brands are susceptible to failures from power surges such as nearby lightning strikes. For this reason and for your protection, Briggs & Stratton makes the recommendation that the GFCI gets tested before every use of the POWERLINK™ system. If found to be defective, it must be replaced by an Authorized Service Dealer before further use.

Also, please note that the GFCI does not protect from serious electrical shocks resulting from contact between the system neutral (white wire) and the "hot lead" (black wire). See listed warnings within this document for further clarification on hazards and how to avoid them.

The POWERLINK™ Operating Instructions contain safety information to:

- Make you aware of hazards associated with the POWERLINK™ On-Board Generator System.
- Inform you of the risk of injury associated with those hazards, and
- Tell you how to avoid or reduce the risk of injury.

Need assistance?

Go to www.briggsandstratton.com for information.

Or call, **1-800-233-3723**, (U.S.A. and Canada) to hear a menu of pre-recorded messages offering engine maintenance information.



Read and follow all Safety Information and Instructions before first use of this product. Keep these instructions for future reference.



Failure to follow instructions could result in serious injury or death. The safety alert symbol is used to identify safety information about hazards which can result in death, serious injury, and/or property damage.



DANGER indicates a hazard which, if not avoided, **will result in death or serious injury**.



WARNING indicates a hazard which, if not avoided, **could result in death or serious injury**.



CAUTION indicates a hazard which, if not avoided, **might result in minor or moderate injury**.

CAUTION, when used **without** the alert symbol, indicates a situation that **could result in damage to the engine**.



SHOCK indicates a hazard which, if not avoided, **could result in death, serious injury, and/or property damage**.



FIRE indicates a hazard which, if not avoided, **could result in death, serious injury, and/or property damage**.



HOT SURFACE indicates a hazard which, if not avoided, **could result in death, serious injury, and/or property damage**.



TOXIC FUMES indicates a hazard which, if not avoided, **could result in death, serious injury, and/or property damage**.



SEVERING OF HANDS, OR FINGERS indicates a hazard which, if not avoided, **could result in death, or serious injury**.




SEVERING OF FINGERS indicates a hazard which, if not avoided, **could result in death, or serious injury**.



These labels warn of potential hazards that can result in death or serious injury. Read and understand them before operating the equipment.

**WARNING**




- THIS ENGINE IS EQUIPPED WITH A HIGH VOLTAGE GENERATOR.
- ONLY AUTHORIZED SERVICE DEALERS SHOULD SERVICE THE ENGINE AND GENERATOR.
- REPLACE ALL ELECTRICAL COMPONENTS AND WIRING TO ORIGINAL POSITION AFTER PERFORMING SERVICE.
- GENERATOR IS EQUIPPED WITH STRONG FLYWHEEL MAGNETS. FLYWHEEL REMOVAL WILL CREATE AN INCREASED MAGNETIC FIELD. ELECTRONIC TRANSMITTING DEVICES SUCH AS A CELL PHONE, CORDLESS PHONE, OR 2 WAY RADIO OPERATED IN THE PRESENCE OF A REMOVED FLYWHEEL CAN CAUSE A PACEMAKER OR SIMILAR DEVICE TO FAIL.

**WARNING**




- HIGH VOLTAGE - ELECTROCUTION OR SERIOUS INJURY CAN OCCUR
- DO NOT REMOVE OR TAMPER WITH THIS COVER
- KEEP ALL CORDS IN GOOD CONDITION
- RISK OF ELECTRIC SHOCK. USE ONLY THE GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLE SPECIFIED WITH THIS INVERTER. OTHER TYPES MAY FAIL TO OPERATE PROPERLY WHEN CONNECTED TO THIS INVERTER EQUIPMENT


- HOT SURFACES - TO PREVENT BURNS - DO NOT TOUCH





PART # 695981
INPUT: 225V, 100 TO 600 HZ, 12.5 AMPS
PROVIDED WITH INTEGRAL PROTECTION AGAINST OVERLOADS
OUTPUT: 120V AC, 60 HZ, 1.0 KW CONTINUOUS/
1.5 KW, 5 MINUTES MAXIMUM, AT 3,350 ENGINE RPM.
NOTICE: THE OUTPUT OF THIS DEVICE IS NOT SINUSOIDAL, IT
HAS A TOTAL HARMONIC DISTORTION OF 33% AND A MAXIMUM
SINGLE HARMONIC DISTORTION OF 24%.




E221765



**DANGER**



PLEASE READ BOTH SIDES
CAREFULLY AND
FOLLOW ALL DIRECTIONS


- STOP ENGINE AND REMOVE IGNITION KEY BEFORE SERVICING CORD
- REMOVE CORD BY GRASPING PLUG
- DO NOT BEND, MODIFY, OR REMOVE ANY METAL PRONGS OR PINS OF PLUG
- CORD MUST BE INSTALLED WITH RETAINING SCREWS BEFORE OPERATING ENGINE



**DANGER**



PLEASE READ BOTH SIDES
CAREFULLY AND
FOLLOW ALL DIRECTIONS

- MISUSE OF ELECTRICAL CORDS CAN RESULT IN FIRE, INJURY, OR DEATH BY ELECTRICAL SHOCK
- KEEP AWAY FROM WATER
- KEEP CORDS IN GOOD CONDITION & REPLACE IF NECESSARY
- SERVICE SHOULD ONLY BE DONE BY AN AUTHORIZED SERVICE DEALER

**WARNING**



Improper maintenance or repair could result in death, serious injury and/or property damage.

An Authorized Service Dealer should perform all service.


Do not perform any maintenance on the POWERLINK™ On-Board Generator System with the engine running. Stop the engine and remove the spark plug wires from the spark plugs.



Do not perform any modifications to the POWERLINK™ On-Board Generator System, the inverter, or the GFCI receptacle.

Do not remove cover on the GFCI receptacle.

The GFCI receptacle **must** be serviced with original factory approved GFCI receptacle, and which conforms to N.E.C. requirements. See listing under Service and Maintenance.

Never tamper with engine governed speed.

**WARNING**



Improper operation could result in death, serious injury and/or property damage.

Never use unit as a backup alternative for a main power source.

Never connect the POWERLINK™ On-Board Generator System to the electrical system of a building. Doing so could cause a power back feed that may electrocute utility workers or others who come in contact with the line.

Never operate without the factory installed GFCI receptacle.

GFCI receptacle **will not** protect you against:

- Line-to-line shocks (like the kind you get by touching metal in both straight slots of a receptacle)
- Current overloads
- Line-to-line short circuits



WARNING



The POWERLINK™ On-Board Generator System produces electricity that could result in death, serious injury and/or property damage if proper precautions are not followed.

Never handle any kind of electrical cord or device while standing in water, or while barefoot, or while hands and/or feet are wet.

Do not operate unit:

- in rain.
- if electrical cord or device, which is plugged into the GFCI receptacle over heats.
- if electrical output is lost.
- if flame, spark or smoke is observed while unit is running.

Maintain and use proper sized electrical cord sets and extension cords per electrical device specification. Use cords rated for no less than 15 amps.

Use cords which are in good condition. Never use worn, bare, frayed or otherwise damaged cord sets.

Avoid contact with bare wires, terminals, and damaged cords.

Keep extension cord lengths at minimum possible length. Long extension cords draw additional power.



WARNING



Running the POWERLINK™ On-Board Generator System produces heat.

Severe thermal burns can occur on contact.

Avoid contact with hot surfaces, such as the inverter.



DANGER



The engine used in the POWERLINK™ On-Board Generator System gives off carbon monoxide, an odorless, colorless, and poisonous gas.

Breathing carbon monoxide can cause nausea, fainting, or death.

Never run POWERLINK™ On-Board Generator System in an enclosed area, even if doors or windows are open.

THE POWER IN POWERLINK™

The POWERLINK™ On-Board Generator System will operate continuously at 1000 watts output, and up to 1500 watts for brief periods. Operating at loads above 1000 watts continuously may trigger the POWERLINK™ system to reset and halt the electrical output needed to power the load. The system produces 120 volts, 60 cycle AC electrical power. Prior to connecting any electrical device, ensure compatibility of operating voltage and frequency requirement.

The POWERLINK™ system output remains 120 volts throughout the entire engine speed range. Output wattage increases with engine speed. Select the engine speed that will power the electrical device satisfactorily without triggering the POWERLINK reset.




CAUTION: Damage may result if the equipment operates outside of a $\pm 10\%$ voltage variation from the rated voltage of 120V.


POWERLINK™ OPERATING INSTRUCTIONS

- [1] Start the engine and set the desired engine speed.
- [2] No load should be applied to the engine, (Power-Take-Off should be disengaged) and the parking brake must be LOCKED. If these are not done, the POWERLINK™ system will not operate.
- [3] Actuate the POWERLINK™ reset switch. Move the reset switch to the OFF position and then return it to the ON position.
- [4] Plug the electrical device into the GFCI receptacle and start device. See also, **Applying Device Load**.
- [5] Any time the engine stops, for any reason, the POWERLINK™ reset switch must be actuated. Follow the steps outlined above. See also, **Electrical Operating Power Loss**.

Applying Device Load

The electrical device requiring power should not exceed the capacity of the POWERLINK™ system (See **The Power in POWERLINK**). It is recommended that all electrical devices and extension cords plugged into the GFCI receptacle have a three prong terminal. If using more than one electrical device, plug-in and start the higher rated load first.

**WARNING**




Unintentional start-up can result in entanglement, traumatic amputation, or laceration.

- Always ensure the device being plugged into the system is OFF before connecting it to the GFCI receptacle.
- Check device being connected for bare wires, or frayed electrical cords.

Types of products (requiring 1500 watts or less*) that could be powered by the POWERLINK™ system:

Hedge trimmer	Circular saw	Lighting
Refrigerator	Furnace Blower	Freezer
Hand tools	Chain saw	String trimmer
Television	Sump pump	Edger
Radio	Computer	

*Always confirm the product's power rating before plugging into the POWERLINK™ system.

**CAUTION:** Do not connect a battery charger, or charge batteries from POWERLINK™. This could cause damage to the battery charger or the POWERLINK™ system.

Electrical Operating Power Loss


The POWERLINK™ system has safety features to protect the system and the operator. The electrical output of the POWERLINK™ system will shut down at any electrical overload caused by temperature or a system overload.


On an overload, the reset opens and disconnects electrical power to the GFCI receptacle, tripping the system. A manual reset switch, located on the tractor, has been installed to reset the electrical output of the POWERLINK™ system. Once reset, operating power is returned and the work load can be reconnected.

If the system continually trips, causing the operator to reset, increase engine speed. If engine is running at top speed and the system is still tripping, the system is being overloaded. Decrease the load.

If power does not resume after reset, it may be a thermal overload. Wait 15 minutes before actuating the reset.

The electrical operating output will also cease if there is a ground fault. The GFCI receptacle will trip to protect the operator. See also, **Resetting the POWERLINK System.**

**WARNING**



Do not perform any modifications to the POWERLINK™ On-Board Generator System, the inverter, or the GFCI receptacle.

Never tamper with engine governed speed.

Resetting the POWERLINK™ System

- [1]

Turn off any device or appliance that was in use prior to the loss of electrical operating power.
- [2]

Verify if the RESET button on GFCI receptacle has not been tripped.
Note: The RESET button will pop out if tripped. To restore, press the RESET button.
- [3]

The engine must be running and the parking brake must be set.
- [4]

Actuate the POWERLINK™ reset switch. Move the reset switch to the OFF position and then return it to the ON position. For the operators safety, there is a two second delay in power to the GFCI receptacle after reset.

TESTING THE GFCI

To ensure proper operation, and avoid injury the GFCI receptacle should be tested before every use.

- [1]

Have the POWERLINK™ system running and the power reset.
- [2]

Plug in a lamp or radio for verification that electrical power is present.
- [3]

Press the GFCI TEST button in order to trip the system and stop the flow of electricity.
- [4]

If the device is still being powered, the GFCI is not working properly. Seek an Authorized Service Dealer.
- [5]

If the power goes off, the GFCI is working properly. To restore power, press the RESET button.

SERVICE AND MAINTENANCE OF POWERLINK™ SYSTEM

**WARNING**



Repairs to the POWERLINK™ system and wiring must be done by an Authorized Service Dealer. All electrical components and wiring must be in the original position when the repair is complete.

The **GFCI** must be replaced with the appropriate parts listed in UL Standard 943, Class A and conforming to N.E.C. requirements.

Units built **before an engine date code** of 040201 must be replaced with **Eagle GFCI** p/n **GF15BK (B&S p/n 699146)**.

Units built **after an engine date code** of 040131 must be replaced with **Hubbell/Bryant GFCI** p/n **GF53BKA (B&S p/n 790239)**.

**WARNING**



Care must be exercised when removing and installing the engine flywheel. The force of the flywheel magnets is extremely high and they will rapidly draw the flywheel to the engine. Hand and/or finger injury can result. A lift must be used to remove and install the flywheel.

Always consult an Authorized Briggs & Stratton Service Dealer on the service of this engine.